THE JOURNAL OF HYGIENE

EDITED BY

J. R. PATTISON

M. J. LEWIS C. R. MADELEY W. C. NOBLE

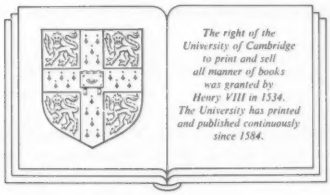
P. MORGAN-CAPNER

(ASSISTANT EDITOR)

IN CONJUNCTION WITH

M. J. ANDERSON
R. M. ANDERSON
R. D. BARRY
P. S. BRACHMAN
A. B. CHRISTIE
M. DEGRÉ
S. M. FEINSTONE
R. G. FINCH
R. J. GILBERT
ANNA HAMBRAEUS
M. H. HINTON
J. C. DE JONG
J. B. KURTZ
O. M. LIDWELL
D. H. LLOYD
R. R. MARPLES
O. MEURMAN
P. P. MORTIMER
J. NAGINGTON
J. S. OXFORD
R. F. SELLERS
M. B. SKIRROW
C. C. SPICER
R. S. TEDDER
H. E. TILLETT
R. VAN DER WAAIJ
H. WILLIAMS-SMITH
A. T. WILLIS
SIR GRAHAM WILSON

VOLUME 95, 1985



CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE
LONDON NEW YORK NEW ROCHELLE
MELBOURNE SYDNEY

Published by the Press Syndicate of the University of Cambridge
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
32 East 57th Street, New York, NY 10022, USA
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

© Cambridge University Press 1985

Printed in Great Britain by the University Press, Cambridge

Contents

No. 1 (August 1985)

PAGE

Bolton, F. J., Dawkins, H. C. and Hutchinson, D. N. Biotypes and serotypes of thermophilic campylobacters isolated from cattle, sheep and pig offal and other red meats 1

Taylor-Robinson, D. and Furr, Patricia M. The interplay of host and organism factors in infection of the mouse genital tract by *Mycoplasma pulmonis* . . 7

Manser, P. A. and Dalziel, R. W. A survey of campylobacter in animals . . . 15

Reilly, W. J., Old, D. C., Munro, D. S. and Sharp, J. C. M. An epidemiological study of *Salmonella montevideo* by biotyping 23

Jepras, R., Fitzgeorge, R. B. and Baskerville, A. A comparison of virulence of two strains of *Legionella pneumophila* based on experimental aerosol infection of guinea-pigs 29

Pinegar, J. A. and Cooke, E. M. *Escherichia coli* in retail processed food . . . 39

Hallas, Gillian. The production of pyrogenic exotoxins by group A streptococci 47

Smith, G. R., Turner, A., Murray, L. G. and Oliphant, Janet C. The weak immunogenicity of *Fusobacterium necrophorum* 59

Skovgaard, Niels, Christensen, Sven Gade and Gulistani, A. W. Salmonellas in Danish pigs: a comparison of three isolation methods 69

Hinton, M., Hampson, D. J., Hampson, Elizabeth and Linton, A. H. The effects of oxytetracycline on the intestinal *Escherichia coli* flora of newly weaned pigs . . 77

Sibbald, C. J. and Sharp, J. C. M. Campylobacter infection in urban and rural populations in Scotland 87

Kanyi Kibe, M., Bidwell, D. E., Turp, P. and Smith, G. R. Demonstration of cross-reactive antigens in F38 and related mycoplasmas by enzyme-linked immunosorbent assay (ELISA) and immunoblotting 95

Barker, Ruth M. Utilization of *d*-tartaric acid by *Salmonella paratyphi B* and *Salmonella java*: comparison of anaerobic plate test, lead acetate test and turbidity test 107

Wilkins, E. G. L. and Roberts, C. Superficial tuberculosis lymphadenitis in Merseyside: 1969–1984 115

Matthews, Julie, Slater, K. and Newson, S. W. B. The effect of surgical gowns made with barrier cloth on bacterial dispersal. 123

Wieneke, Antonnette A. and Gilbert, R. J. The use of a sandwich ELISA for the detection of staphylococcal enterotoxin A in foods from outbreaks of food poisoning 131

Vassiliadis, P., Mavrommati, Ch., Kalapothaki, V., Chronas, G. and Efstratiou M. Salmonella isolation with Rappaport–Vassiliadis enrichment medium seeded with different sized inocula of pre-enrichment cultures of meat products and sewage water 139

SELLERS, R. F. and PEDGLEY, D. E. Possible windborne spread to Western Turkey of bluetongue virus in 1977 and of Akabane virus in 1979 149

NASCIMENTO, J. P., KRAWCZUK, M. M., MARCOPITO, L. F. and BARUZZI, R. G. Prevalence of antibody against influenza A viruses in the Kren-Akorore, an Indian tribe of Central Brazil, first contacted in 1973 159

HOMAN, E. J., TAYLOR, W. P., LORBACHER DE RUIZ, H. and YUILL, T. M. Bluetongue virus and epizootic haemorrhagic disease of deer virus serotypes in northern Colombian cattle 165

CALLOW, KATHLEEN A. Effect of specific humoral immunity and some non-specific factors on resistance of volunteers to respiratory coronavirus infection . . 173

GLYN DAVIES, F. and JESSETT, D. M. A study of the host range and distribution of antibody to Akabane virus (genus bunyavirus, family *Bunyaviridae*) in Kenya 191

LINTHICUM K. J., DAVIES, F. G., KAIRO, A. and BAILEY, C. L. Rift Valley fever virus (family Bunyaviridae, genus *Phlebovirus*). Isolations from Diptera collected during an inter-epizootic period in Kenya. 197

No. 2 OCTOBER 1985

WATKINS, I. D., TOBIN, J. O'H., DENNIS, P. J., BROWN, W., NEWNHAM, R. and KURTZ, J. B. *Legionella pneumophila* serogroup 1 subgrouping by monoclonal antibodies – an epidemiological tool 211

NEWELL, DIANE G., MCBRIDE, HAROLD and DOLBY, JEAN M. Investigations on the role of flagella in the colonization of infant mice with *Campylobacter jejuni* and attachment of *Campylobacter jejuni* to human epithelial cell lines 217

GIRDWOOD, R. W. A., FRICKER, C. R., MUNRO, D., SHEDDEN, C. B. and MONOGHAN, P. The incidence and significance of salmonella carriage by gulls (*Larus* spp.) in Scotland. 229

LEE, D. H., MILES, R. J. and PERRY, B. F. The mycoplasmacidal properties of sodium hypochlorite 243

HAZENBERG, M. P., PENNOCK-SCHRÖDER, A. M. and VAN DE MERWE, J. P. Binding to and antibacterial effect of aztreonam, temocillin, gentamicin and tobramycin on human faeces. 255

SIMOONS-SMIT, A. M., VERWEIJ-VAN, VUGHT, A. M. J. J., KANIS, I. Y. R. and MACLAREN, D. M. Biochemical and serological investigations on clinical isolates of klebsiella 265

STRINGER, M. F., WATSON, G. N., GILBERT, R. J., WALLACE, J. G., HASSALL, J. E., TANNER, E. I. and WEBBER, P. P. Faecal carriage of *Clostridium perfringens* 277

HENSEY, O. J., HART, C. A. and COOKE, R. W. I. Serious infection in a neonatal intensive care unit: A two-year survey. 289

KUMAZAWA, N. H. and KATO, E. Survival of Kanagawa-positive strains of *Vibrio parahaemolyticus* in a brackish-water area 299

HARESNAPE, J. M., LUNGU, S. A. M. and MAMU, F. D. A four-year survey of African swine fever in Malawi 309

CLARK, R. P., REED, P. J., SEAL, D. V. and STEPHENSON, M. L. Ventilation conditions and air-borne bacteria and particles in operating theatres; proposed safe economies 325

FRICKER, C. R., QUAIL, ELAINE, MCGIBBON, LORAINE and GIRDWOOD, R. W. A. An evaluation of commercially available dehydrated Rappaport-Vassiliadis medium for the isolation of salmonellae from poultry 337

ROUSSEAU, S. A. and TETTMAR, R. E. The serological diagnosis of *Mycoplasma pneumoniae* infection: a comparison of complement fixation, haemagglutination and immunofluorescence 345

BISICCHIA, R., CIAMMARUGHI, R., CAPRIOLI, A., FALBO, V. and RUGGERI, F. M. Toxin production and haemagglutination in strains of *Escherichia coli* from diarrhoea in Brescia, Italy 353

WILLIAMS SMITH, H. and HUGGINS, M. B. Acquisition of genes from an O18:K1:H7 ColV$^+$ strain of *Escherichia coli* renders intracranially-innoculated *E. coli* K12 highly virulent for chickens, ducks and guinea-pigs but not mice 363

BALL, H. J. and MACKIE, D. P. The ovine mammary gland as an experimental model to determine the virulence of animal ureaplasmas 375

MORGAN, I. R., KRAUTIL, F. and CRAVEN, J. A. A comparison of swab and maceration methods for bacterial sampling of pig carcasses 383

CHUGH, T. D. Transferable resistance to trimethoprim in enteric pathogens isolated in Kuwait 391

ROGERS, M. J., MOORE, R. and COHEN, J. The relationship between faecal endotoxin and faecal microflora of the C57BL mouse 397

HOBORN, JAN and NYSTRÖM, BERTIL. Bacterial counts on fabrics: a comparative study of three methods 403

WAITKINS, SHEENA A., WANYANGU, S. and PALMER, M. The coypu as a rodent reservoir of leptospira infection in Great Britain 409

GRENFELL, B. T. and ANDERSON, R. M. The estimation of age-related rates of infection from case notifications and serological data 419

PYHÄLÄ, R. Antibody status to influenza A/Singapore/1/57(H2N2) in Finland during a period of outbreaks caused by H3N2 and H1N1 subtype viruses 437

SCHOUB, BARRY D., JOHNSON, SYLVIA, MCANERNEY, JO M., DOS SANTOS, ISABEL, L. and KLAASSEN, KATALIN I. M. Epidemic Coxsackie B virus infection in Johannesburg, South Africa 447

ARAYA, M., FIGUEROA, G., ESPINOZA, J., MONTESINOS, N., SPENCER, E. and BRUNSER, O. Acute diarrhoeal disease in children under 7 years of age in a peri-urban slum of Santiago, Chile 457

RIEGEL, F., BURKHARDT, F. and SCHILT, U. Cross-reactions of immunoglobulin M and G antibodies with enterovirus-specific viral structural proteins 469

PATEL, J. R., DANIEL, J. and MATHAN, V. I. An epidemic of acute diarrhoea in rural southern India associated with echovirus type 11 infection 483

GOLUBEV, D. B., KARPUKHIN, G. I., GALITAROV, S. S. and DENISOV, G. M. Type A influenza (H2N2) viruses isolated in Leningrad in 1980 493

BUCKLE, A. P. Field trials of a new sub-acute rodenticide flupropadine, against wild Norway rats (*Rattus norvegicus*) 505

ROWE, F. P., BRADFIELD, A. and SWINNEY, T. Pen and field trials of flupropadine against the house mouse (*Mus musculus* L.) 513

No. 3 (December 1985)

OBITUARY: John Henry McCoy 1913–1985 519

SPECIAL FEATURE: *Escherichia coli*, 1885–1985 521

COOKE, E. M. *Escherichia coli*-an overview. 523

GROSS, R. J. and ROWE, B. *Escherichia coli* diarrhoea 531

ORSKOV, I. and ORSKOV, F. *Escherichia coli* in extra-intestinal infections . . . 551

WRAY, C. and MORRIS, J. A. Aspects of colibacillosis in farm animals . . . 577

HINTON, M. The sub-specific differentiation of *Escherichia coli* with particular reference to ecological studies in young animals including man 595

DATTA, N. *Escherichia coli* as a genetic tool 611

COLLINS, C. H., YATES, M. D. and UTTLEY, H. C. Differentiation of *Mycobacterium chelonei* from *M. fortuitum* by ciprofloxacin susceptibility 619

ROWE, F. P., BRADFIELD, A. and SWINNEY, T. Pen and field trials of a new anticoagulant rodenticide flocoumafen against the house mouse (*Mus musculus* L.) . . . 623

TURNBULL, P. C. B. and KRAMER, J. M. Intestinal carriage of *Bacillus cereus*: faecal isolation studies in three population groups 629

HEIZMANN, W., BOTZENHART, K., DÖLLER, G., SCHANZ, D., HERMANN, G. and FLEISCHMANN, K. Brucellosis: serological methods compared 639

LIDWELL, O. M., LOWBURY, E. J. L., WHYTE, W., BLOWERS, R. and LOWE, D. Extended follow-up of patients suspected of having joint sepsis after total joint replacement 655

CARROLL, P. J. and FRANCIS, P. G. The basic phage set for typing bovine staphylococci 665

BRISCOE, J. H. D. Persistent streptococcal throat infection in a preparatory school for boys 671

HANSMAN, D., MORRIS, S., GREGORY, M. and MCDONALD, B. Pneumococcal carriage amongst Australian aborigines in Alice Springs, Northern Territory . . . 677

BECKERS, H. J., VAN LEUSDEN, F. M. and TIPS, P. D. Growth and enterotoxin production of *Staphylococcus aureus* in shrimp. 685

BELL, T. M., TUKEI, P. M., ADEMBA, G. R., MBUGUA, F. M., GATHARA, G. W., MAGANA, J. M., KINYANJUI, P., MULI, J., HAZLETT, D. T. G., ALWAR, J. E. A., KIPTOON, P. C., KIRETI, V. N. M., WAWERU, A., MWAVUO, R., MBOGO, M., THIONGO, B., KAMANDE, D., MUNYETI T. and ORTEGA, J. Investigation of the effectiveness of measles vaccination in children in Kenya. 695

BAXBY, D., HART, C. A. and BLUNDELL, N. Shedding of oocysts by immunocompetent individuals with cryptosporidiosis 703